



**GROUND
FORCE**

Electric-Powered Go Kart



OWNERS MANUAL

Read and understand this entire manual before riding!

Item Number
300001-SL

CONTENTS

1. Key Parts of the Ground Force	4
2. Preparing for First-Time Use	
2A. Un-box	5
2B. Steering wheel	5
2C. Attach the seat	6
2D. Attach the seat with the seat belt.....	7
2E. The brake	7
2F. Charging prior to use	8
2G. Charging prior to use.....	8
3. Safety Check Before Riding	9
4. Maintenance and Repairs.....	9
5. Safety.....	14
6. Illustrated Parts Breakdown.....	16
7. Limited Warranty and Owner Registration.....	18

SAFETY WARNINGS

⚠ NOTE: This manual contains many “Warnings” and “Cautions” concerning the consequences of failing to maintain, inspect or properly use your Ground Force. Because any incident can result in serious injury or even death, we do not repeat the warning of possible serious injury or death each time such a warning is mentioned.

AN IMPORTANT MESSAGE TO RIDERS AND PARENTS: READ THIS ENTIRE MANUAL BEFORE OPERATING OR ALLOWING USE OF THE Ground Force, AND KEEP THIS MANUAL AVAILABLE FOR FUTURE REFERENCES. This manual contains important safety information. For safety, it is your responsibility to review this information and make sure that all riders understand all warnings, cautions, instructions and safety topics and assure that young riders are capable and able to safely and responsibly use this product. Razor USA recommends that you periodically review and reinforce the information in this manual with younger riders, and you are required to inspect and maintain your child’s vehicle to insure their safety.

The recommended rider age is only an estimate, and can always be effected based upon a particular rider’s size, weight or skills. If the rider is unable to fit comfortably on the Ground Force, don’ attempt to ride it.

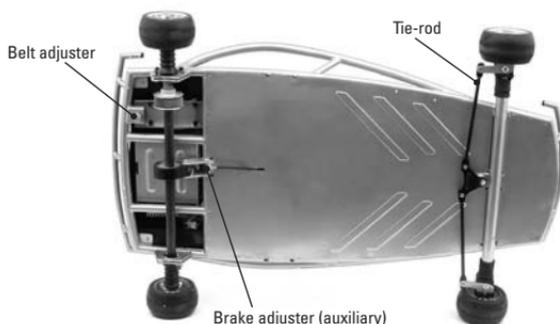
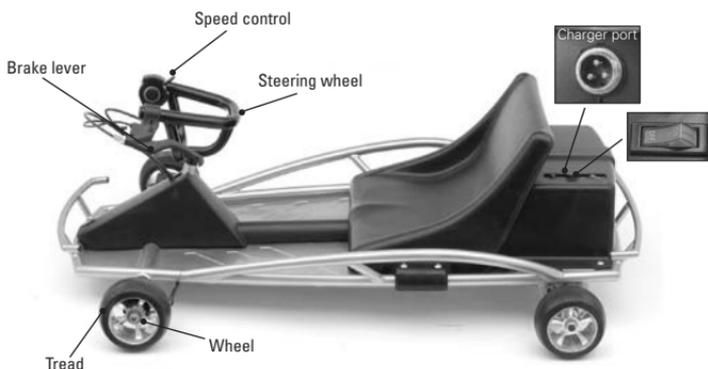
Keep this product away from small children and always understand that this product is intended for use only by persons who are, at minimum, completely comfortable and competent while operating the vehicle.

⚠ GENERAL WARNING: Driving the Ground Force can be a hazardous activity. Electric vehicles can, and are intended to, move and it is therefore possible to get into dangerous situations and/or lose control and/or fall off. If such things occur, you can be seriously injured or die. **LIKE ANY OTHER MOVING PRODUCT, USING THE GROUND FORCE CAN BE A DANGEROUS ACTIVITY AND MAY RESULT IN INJURY OR DEATH EVEN WHEN USED WITH SAFETY EQUIPMENT AND OTHER PRECAUTIONS. USE AT YOUR OWN RISK AND USE COMMON SENSE.**

- Always check and obey any local laws or regulations which may affect the locations where the Ground Force may be used on public property. The Ground Force is meant to be used only in controlled environments free of potential traffic hazards, and not on public streets or sidewalks. Do not try to ride your Ground Force on public streets or in any areas where pedestrian or vehicle traffic may present a risk of collision or injury to yourself or others. Watch out for potential obstacles including pedestrians, skaters, skateboards, scooters, bikes, children or animals who may enter your path, and respect the rights and property of others.
- Do not ride the Ground Force in wet weather and never immerse the Ground Force in water, as the electrical and drive components of the Ground Force could be damaged by water or create other possibly unsafe conditions.
- The Ground Force is designed to perform best outdoors on solid, flat, clean and dry surfaces. Wet, slick or uneven and rough surfaces may impair traction and contribute to possible accidents. Use only on flat, dry, level ground without loose debris, such as rocks or gravel. Do not drive the Ground Force in mud, ice, puddles of water. Avoid excessive speeds that can be associated with downhill rides. Never risk damaging indoor surfaces such as carpet or flooring by use of a Ground Force indoors.
- Do not ride at night or in impaired visibility conditions.
- Always wear proper protective equipment, such as an approved safety helmet, elbow pads and kneepads. A helmet may be legally required by local law or regulation in your area, and should always be worn when driving a Ground Force. Always wear shoes, never drive barefooted or in sandals, and keep shoelaces tied and out of the way of the wheels, motor and drive system.
- The electric motor in your Ground Force can become hot when in use. Do not touch the motor and handle the Ground Force carefully.
- Do not exceed the weight limit of 140 pounds (see warning on back page).
- Do not attempt to do stunts or tricks on your Ground Force. The Ground Force is not made to withstand abuse from misuse such as jumping, curb grinding or any other type of stunts.
- The charger supplied with the Ground Force should be regularly examined for damage to the cord, plug, enclosure, and other parts and in the event of such damage, the kart must not be charged until it has been repaired or replaced.
- Use only with the recommended charger.
- * The charger is not a toy
- If wiping down and cleaning your Ground Force with liquid, always disconnect from the charger before cleaning.
- * Refer to the chapter on Safety for additional warnings.

FAILURE TO USE COMMON SENSE AND HEED THE ABOVE WARNINGS FURTHER INCREASES RISK OF SERIOUS INJURY. USE AT YOUR OWN RISK AND WITH APPROPRIATE AND SERIOUS ATTENTION TO SAFE OPERATION. USE CAUTION.

1. KEY PARTS OF THE GROUND FORCE



⚠ NOTE: Do not activate the speed control on the setting wheel unless you are in a safe, outdoor environment. Use this product only in areas free of potential traffic hazards and not on public streets or sidewalks.

⚠ WARNING: REGARDING USE OF NON-RAZOR PRODUCTS WITH YOUR RAZOR GROUND FORCE. The Ground Force has been built to certain Razor design specifications. The original equipment supplied at the time of sale were selected on the basis of their compatibility with the frame, fork and all other parts. Certain after-market products may or may not be compatible. Consult your retailer or call Razor prior to modifying or replacing any component with non-factory specified product.

⚠ WARNING: CHECK LOCAL LAWS REGARDING USE. Check local laws and regulations to see where and how you may use your Razor Ground Force legally. In many states and local areas, riders are required BY LAW to wear a helmet. Check local laws and regulations regarding laws governing helmet use, age and vehicle operation in your area.

TOOLS REQUIRED FOR ASSEMBLY

- 5 mm hex key wrenches
 - 10 mm box wrench (spanner)
 - *Razor recommends assembly by an adult with experience in mechanics*
- Some tools may be supplied, however we recommend the use of mechanic's grade tools. Use the supplied tools only as a last resort.*

⚠ WARNING: Failing to properly adjust and tighten the screws, nuts and bolts that affix the steering wheel and seat can cause you to lose control and crash.

2. PREPARING FOR FIRST-TIME USE

□ **2A. Un-box.** Remove contents from box. Remove the foam separators that protect the various components from damage during shipping. Inspect the contents of the box for scratches in the paint, dents or kinked cables that may have occurred during shipping. The Ground Force was 99% assembled and packed at the factory to prevent shipping damage and there should not be any problems, even if the box has a few scars or dents. But if there are, contact Razor USA, toll free, at (866) 467-2967 to resolve any problems.

□ **2B. Steering wheel.** Remove the bolt and washers at the end of the steering axle as shown in Figure 2a. Untangle the wires and orient as shown in Figure 2b. Insert steering axle into steering column as shown in Figures 2b and 2c.

Carefully turn the Ground Force on it's side. We recommend that you have someone hold the Ground Force up or, alternately, you can lean it against a wall for the installation of the tie-rod to the steering axle.

⚠ WARNING: Flipping the Ground Force upside down is not recommended as it could damage the control wires from the steering wheel.



Figure 2a



Figure 2b



Figure 2c

Positioning the steering wheel for attachment to tie-rods.

Tighten securely. Position the tie-rod control arm onto the steering axle as shown in Figure 3a and install the washers and fixing bolt. Using a 10 mm wrench, tighten securely.



Figure 3a



Figure 3b

Tighten the tie-rod control arm using a 5 mm hex key wrench.

⚠ WARNING: Failure to use the washer and lock washer or failure to properly tighten the steering wheel may cause you to lose control and crash.

□ 2C. Attach the seat without seat belt assembly. Locate the four (4) long seat attachment screw and spacer washers in the parts bag. Position the seat over the frame and align it with the holes in the frame. Insert the screws as shown in Figure 4a, using the spacer washer as indicated by the arrow in Figure 4a. Insert all four screws and washers and tighten securely using two Allen key wrenches as shown in Figure 4b.

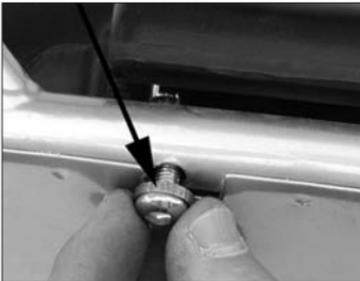


Figure 4a



Figure 4b

❑ 2D. Optional attaching the seat with seat belt assembly.

Locate the four (4) long seat attachment screw and seat-belt assembly in the parts bag. Position the seat over the frame and align it with the holes in the frame. Position the seat-belt anchors with the lap/shoulder assembly on the left side and the receiver latch on right side. Insert the screws as shown in Figure 5a and tighten. Install the shoulder belt anchor to the back of the seat as shown in Figure 5b using the supplied screw, tighten securely.



Figure 5a



Figure 5b

⚠ WARNING: The seat belt arrangement supplied with the Ground Force is for “play” use only. It is not an ASTM-approved safety belt system and is not intended to function as an approved lap/shoulder/seat restraining device. The seat belt system is not required for normal use. Install and use at your own risk.

⚠ NOTE: Although we make every effort to keep our manual up-to-date, if your Ground Force does not look exactly as shown here, then we may have made improvements since this document was printed. Check out the Razor website: www.razor.com for technical updates on the latest service and adjustment procedures.

❑ **2E. The brake.** The Ground Force is fitted with a hand-operated brake. To use the brake, squeeze the lever to increase the pressure on the brake until so you come to a smooth and controlled stop. The brake lever is fitted with cable adjuster to compensate for cable stretch and/or to fine tune the lever movement to brake engagement. To adjust the play, thread the adjuster in or out (arrows, Figure 6a) 1/4 to 1/2 turn until the desired brake adjustment is attained.

If the adjuster at the lever is threaded outward and the brake still has too much slack, use the auxiliary adjuster at the rear brake for additional adjustment (shown in Figure 6b).



Figure 6a

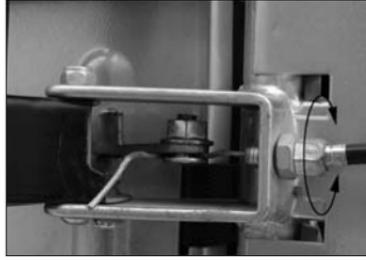


Figure 6b

⚠ WARNING: Practice in an open area free from obstacles until you are familiar with the brake function. **Avoid skidding to a stop as this can cause you to lose control as well as cause damage in the rear tires.**

❑ 2F. Charging the battery prior to use. Your Ground Force may not have a fully charged battery at the time of purchase. Therefore it is a good idea to charge the battery prior to use. The charging input, on/off switch and overload breaker are located on top of the battery/motor cover. Plug in the charger as shown in Figure 7a and connect to a household wall outlet.



Figure 7a



Figure 7b

The charger has a small window with a LED to indicate the charge status (Figure 7b). Refer to the illustration on the charger unit for the actual "charging" and "charged" status indications for your model charger. The initial charge may take from a few minutes to up to 4 hours or more depending on the level of depletion. If your charger does not look exactly like the one in Figure 7b, your unit has been supplied with an alternative charger. The specifications and charging procedure would not change, however.

❑ **2G. Circuit breaker.** The circuit breaker (next to charger input port in Figure 7a) will automatically shut off the power to the motor in the event an overload condition is placed on the motor. An excessive overload, such as too heavy a driver or too steep a hill, could cause the motor to overheat. If the Ground Force suddenly stops running, wait a few seconds and then push breaker to reset the circuit. Avoid whatever conditions caused the breaker to trip and avoid repeatedly tripping the breaker.

3. SAFETY CHECK BEFORE DRIVING

❑ **Loose parts.**

There should not be any unusual rattles or sounds from loose parts or broken components. If you are not sure, ask an experienced mechanic to check.

❑ **Brake.**

Check the brake for proper function. When you squeeze the lever, the brake should provide positive braking action.

❑ **Frame and steering wheel.**

Check for cracks or broken connections. Although broken frames are rare, it is possible for an aggressive driver to bash into a curb or wall and wreck and bend or break a frame. Get in the habit of inspecting your regularly.

⚠ CAUTION: This product moves when used. Exercise caution and common sense when riding.

4. MAINTENANCE AND REPAIRS

⚠ NOTE: Tires and drive belt are subject to normal wear and tear. It is the responsibility of the user to periodically inspect the tires for excess wear.

Check out the Razor website: www.razor.com for updates on the latest maintenance, repair and trouble-shooting procedures.

□ **4A. ADJUSTING THE BELT.** The circuit breaker (next to charger input port in Figure 7a) will automatically shut off the power to the motor in the event an overload condition is placed on the motor. An excessive overload, such as too heavy a driver or to

⚠ **NOTE: Turn power switch off before maintenance procedures.**

If the drive system makes loud noises, slips or makes grinding sounds during the power-on condition, this indicates the belt is probably making the noise. This can be caused by the belt being adjusted too tight during assembly *or* coming loose from normal wear-and-tear.

⚠ **WARNING About Belt tension:** The belt should be “just snug.” In other words, not taut or sloppy loose. **BE CAREFUL NOT TO ADJUST TOO TIGHT.** The tensioning system can ***easily impart too much tension*** and snap the belt or bend the motor output shaft. Turn the adjusting bolt by hand 1/8 to 1/4 turn or less, at a time and recheck the tension each time.

If the belt is too tight, or too loose (skips or comes off), then it may need to be readjusted. To adjust:

⚠ **NOTE:** The motor cover does not need to be removed for this adjustment procedure. The belt tension can be checked tipping the Ground Force on it's side and reaching under the cover.

4A-1.) Referring to Figure 8, loosen the belt jack-screw locknut (B) and tighten or loosen the adjusting bolt (A) to tighten or loosen the belt as needed.

4A-2.) Once the tension is good, while holding the adjusting screw, retighten the locknut securely. Test run the Ground Force. Re-adjust as needed.

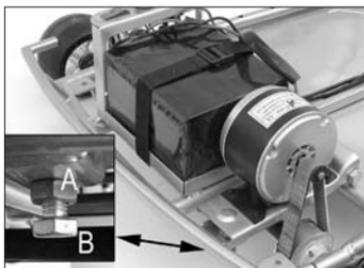


Figure 8

⚠ **NOTE:** Proper belt alignment to the axle pulley must be maintained. If the belt is adjusted properly, but is noisy or rough running, check alignment of the drive-axle pulley. The pulley can be adjusted slightly from side-to-side by loosening the set screw. Note that a key maintains the drive position to the shaft.

❑ **4B. WHEEL REMOVAL PROCEDURE.** Occasionally the wheels need to be replaced when worn out. The front and rear wheels are identical and can be interchanged. The only difference is how the wheels attach. The rear wheels are keyed to the rear axle, while the front wheels have bearings (608ZZ = standard skateboard bearings).

4B-1.) To remove a wheel, loosen and remove the self-locking nut (13 mm socket or wrench required for the front wheels; 17 mm socket or wrench required for the rear wheels). Tap the wheel to remove.



Figure 9

4B-2.) To replace a front wheel, make sure the bearings are seated and the center spacer is installed. Position the wheel so the Razor logo is toward the outside. Install the washer and tighten the self-locking nut securely. Refer to Figure 10 for assembly detail.

⚠ NOTE: The razor logo on the tread must face out.

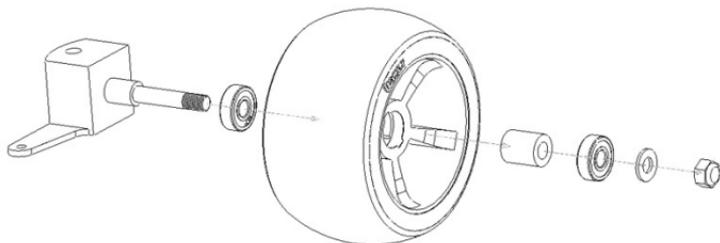


Figure 10

4B-3.) To replace a rear wheel, make sure the keys are properly seated in the axle and aligned with the key ways in the wheel (Figure 11). Tighten the self-locking nut securely.

⚠ NOTE: The razor logo on the tread must face out.

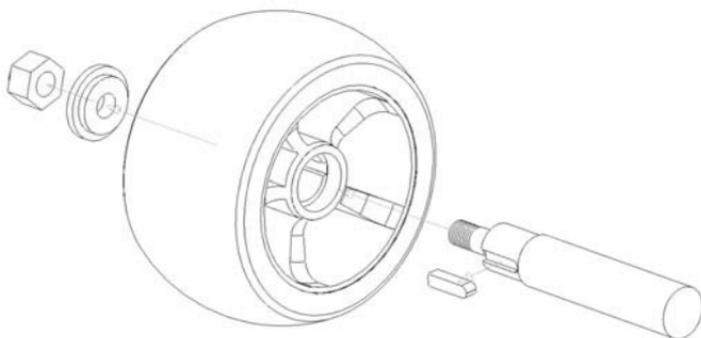


Figure 11

□ 4C. REPLACING THE BELT. Occasionally the belt needs to be replaced when worn out.

Tools required for rear wheel and axle removal: (1) 17 mm open end or socket wrenches, (1) 5 mm Allen key, (1) 2 mm Allen key, (1) rubber mallet.

⚠ NOTE: The exact procedure for belt replacement may vary depending on how your Ground Force is configured. The following procedure is based on the design at time of publication of this Owner's Manual. If your Ground Force does not look exactly like this, please check the Razor website (www.razor.com) for updates.

4C-1.) Remove the seat and motor cover. Loosen the belt adjustment jackscrew as described in 4A-1.

4C-2.) Loosen and remove the axle nut on the right side rear wheel (Figure 12a).

4C-3.) Loosen and remove the axle guard (Figure 12b). Remove the spacer tube and any shims or rings that the factory may have used to fine-tune the fit.

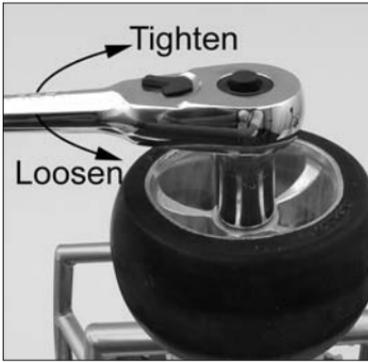


Figure 12a



Figure 12b

4C-4.) Remove the brake guard and, using the small Allen key, loosen setscrew to release the brake drum. This may or may not require the loosening of the brake cable to gain access to the fixing screw. Loosen the drive pulley in the same manner. Slide the brake drum toward the drive pulley.

4C-5.) Lightly tap the end of the axle with a rubber mallet. **DO NOT USE A HAMMER** as this will damage the thread. The axle will slide through the bearing hanger on the frame. The brake drum and pulley must be slid along the axle as your tapping progresses.

4C-6.) When the axle end is clear of the bearing hanger, remove and replace the belt as shown in Figure 13.



Figure 13

4C-7.) Reverse procedure to reassemble and tension the belt as described in 4A.

5. SAFETY

⚠ THE FOLLOWING RECOMMENDATIONS ARE EXPECTED FROM: ASTM F1928-98, "STANDARD SAFETY GUIDE FOR CONSUMER RECREATIONAL USE OF FUN-CARTS"

Go kart shall not be operated with any modifications to the kart or it's components.

Go karts shall not be operated to perform racing, stunt riding, jumps, spin-outs, donuts or other maneuvers which may cause loss of control, or may cause uncontrolled operator or kart actions or reactions, as such activities are likely to result in possible injury to the operator or bystanders or both.

Go kart shall not be operated unless the rider is seated in the proper position for vehicle operation with rider's hands on the steering wheel, the brake fully engaged and the safety belt fastened.

No person shall allow hands, feet, hair, body parts, clothing or similar articles to come in to contact with moving parts of the go kart, wheels or drive train while the engine is running.

Riders shall stay seated with both hands on the steering wheel and both feet in the go kart at all times, whether moving or stationary, unless the go kart is stopped completely and turned off.

Riders shall not operate the go kart if hair, clothing or other articles can extend past the go kart seat back or under the wheels.

Go karts shall operate outdoors and only on smooth, level and dry surfaces.

Go karts shall not be operated on roads, streets, highways, or at any other location where road vehicles are intended to travel.

Go karts shall be operated only with adequate lighting and under conditions of suitable visibility.

No rider or other person shall contact any portion of the motor, wheels or drive train for any purpose including maintenance until the motor has been turned off and allowed to cool, and the go kart is in a stable and stationary position.

6. ADDITIONAL RAZOR SAFETY WARNINGS

⚠WARNING: Maintain a hold on the steering wheel at all times.

⚠WARNING: Never use near steps or swimming pools.

⚠WARNING: Traffic can be fatal. Do not drive on streets or around cars.

⚠WARNING: Keep your fingers, long hair and other body parts away from the drive system, rotating wheels, and all other moving components.

⚠WARNING: Kids need to be taught and be frequently reinforced of the importance of safe riding, the rules of the road and the importance of avoiding using the Ground Force on streets due to dangers and hazards of traffic, especially motor vehicle traffic. Parents and children are urged to read and understand these safety tips together.

⚠WARNING: WEIGHT LIMIT

140 pounds maximum rider weight limit. Heavier riders may cause damage not covered by warranty. **DO NOT RIDE UNLESS YOU CAN SAFELY RIDE AND CONTROL THE GROUND FORCE.** Rider weight does not necessarily mean a person's size is appropriate to fit or maintain control of the Ground Force. Read additional warnings inside this manual.

Drive defensively. Assume that pedestrians and others are so absorbed in their own world that they are not paying any attention to you and that they will run you down or step out in front of you, all without any warning.

Watch for obstacles such as pot holes, sewer grates, expansion cracks, and road or construction debris (such as nails or other foreign objects) that could catch your wheel or force you to swerve into traffic or lose control.

Never drive with headphones, use a cell phone or apply make-up.

Never carry a passenger.

Never hitch a ride with another vehicle.

Driving the Ground Force may be a hazardous activity and has inherent dangers that no amount of care, caution, instruction or expertise can eliminate. Certain conditions may cause the equipment to fail without fault of the manufacturer. Activities involving the use of electric vehicles carry the risk of injury or death.

7. ILLUSTRATED PARTS BREAKDOWN

See Figure 14 (Specifications and parts list subject to change without notice)

ITEM#	DESCRIPTION	QUANTITY
1	Wheel	4
2	Pindle, right	1
3	Bearing, 608ZZ 8x22	4
4	Tie-rod	2
5	Bushing, lower steering	1
6	Control arm, tie-rod	1
7	Protector, flexible steering, right	1
8	Pindle, left	1
9	Nut, nylock self locking & washer	2
10	Trigger, speed control	1
11	Steering wheel	1
12	Bushing, upper steering	1
13	Frame	1
14	Lever, rear brake w/ cut-off switch	1
15	Screw, steering pivot and seat anchor	6
16	Screw, 5 mm for steering cover	2
17	Cover, steering	1
18	Seat	1
19	Nut, axle and seat coupling	6
20	Cover, motor	1
21	Screw, 6 mm for motor cover	4
22	Battery 12V 7AH	2
23	Cover, rear axle	2
24	Motor, special GF 200W+	1
25	Belt	1
26	Spacer/clip	2
27	Bearing, rear axle 6904ZZ 20x37	2
28	Plate, motor mounting	1
29	Screw, 5 mm socket head cap	5
30	Pulley, axle-mounted	1
31	Axle, rear	1
32	Switch, On/Off	1
33	Plug, charger input	1
34	Circuit breaker	1
35	Electronic control module GF	1
36	Jackscrew, belt adjust w/ nut	1
37	Bolt, motor mount pivot	1
38	Brake drum	1
39	Wiring harness (not shown)	1
40	Seat belt assembly (not shown)	1
41	Brake band assembly (not shown)	1

ILLUSTRATED PARTS BREAKDOWN

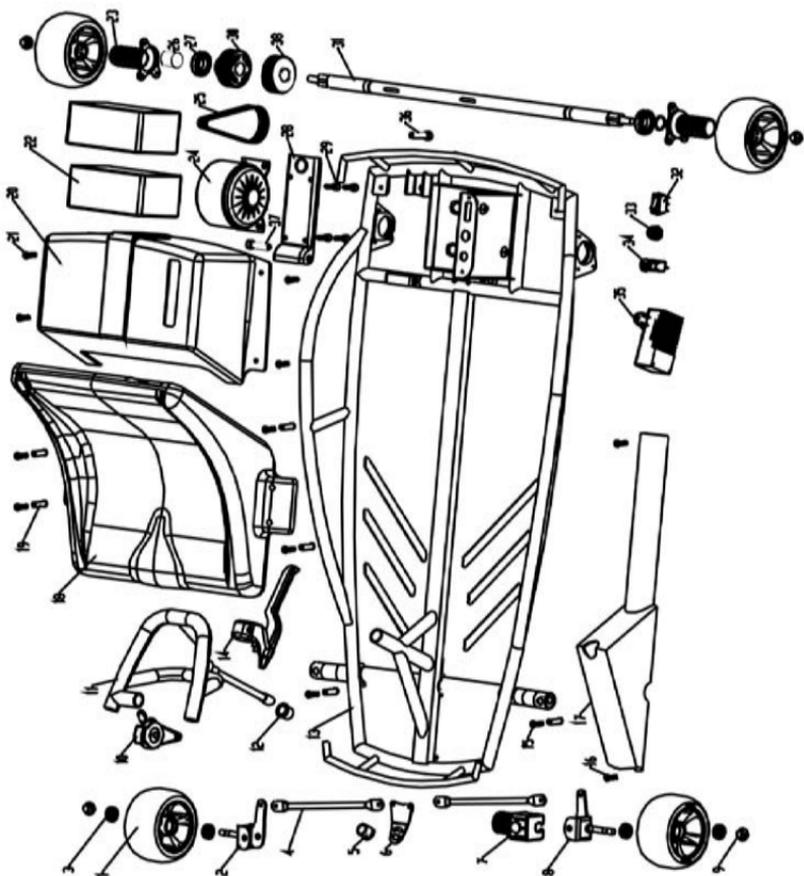


Figure 14

8. RAZOR LIMITED WARRANTY & REGISTRATION

The manufacturer warrants this product to be free of manufacturing defects for a period of 90 days from date of purchase. This Limited Warranty does not cover normal wear and tear, crash damage, tire tread wear, cables, nor any damage, failure or loss caused by improper assembly, maintenance, storage or use of the Razor Ground Force.

This Limited Warranty will be void if the product is ever:

- used in a manner other than for recreation or transportation;
- modified in any way;
- rented

Check local laws and regulations to see where you can ride your Ground Force legally.

The manufacturer is not liable for incidental or consequential loss nor damage due directly or indirectly from the use of this product.

To obtain service under this warranty you must, within the warranty period, contact Razor USA LLC directly by e-mail at warranty@razorusa.com. Razor will provide warranty replacement at its sole discretion.

Authorized warranty service is ONLY available from Razor USA LLC

SB 1918 (CALIFORNIA) DECLARATION:

YOUR INSURANCE POLICIES MAY NOT PROVIDE COVERAGE FOR ACCIDENTS INVOLVING THE USE OF THIS SCOOTER/ELECTRIC VEHICLE. TO DETERMINE IF COVERAGE IS PROVIDED, YOU SHOULD CONTACT YOUR INSURANCE COMPANY OR AGENT.

QUESTIONS:

Please read the owner's manual thoroughly. If you still have questions, check our website for updates and contact information.

Spare tires and batteries are available! Keep your Razor Ground Force running for years with these and other genuine Razor parts.

Visit our website and e-mail us for more information on spare part availability.

Specifications subject to change without notice.

Patent Pending

Rev. 07/25/05 © Copyright 2005 Razor USA. All rights reserved.

Photos by Arthur Cambridge

IMPORTANT!

If your Razor has a problem
call Razor USA toll free
(866) 467-2967

